What is claimed is:

1. A method of treating a central nervous system (CNS) disorder, comprising the steps of:

inserting into a patient's body first and second conduits so that distal ends of the first and second conduits open to a portion of the patient's CNS with direct access to cerebrospinal fluid (CSF) and so that a proximal end of the first conduit opens into a first reservoir of material to be introduced into the CSF and a proximal end of the second conduit opens to drain CSF withdrawn from the CNS;

detecting and analyzing brain activity of a patient;

determining a chemical imbalance present in the CSF by one of a microassay of a sample of CSF and the detected and analyzed brain activity; and

treating the patient based on the determined chemical imbalance by one of supplying an agent to the CSF via the first conduit and withdrawing a quantity of CSF via the second conduit.

2. The method according to claim 1, wherein the brain activity of the patient is detected using one of a quantitative electroencephalography system and a brainstem auditory evoked response system analyzing brain activity of the patient, to identify brain activity corresponding to a predetermined imbalance within the CSF.

3. The method according to claim 1, wherein results of the detection and analysis of the patient's brain activity are provided to treatment personnel who utilize the results to direct the treating of any detected chemical imbalance.

4. The method according to claim 1, further comprising the step of providing a first pump between the first reservoir and the distal end of the first conduit for controlling introduction of material from the first reservoir to the CSF.

5. The method according to claim 4, wherein the first pump is an osmotic pump.

6. The method according to claim 4, wherein the first pump is a micro-mechanical pump.

7. The method according to claim 4, wherein the first reservoir includes a plurality of chambers with a corresponding therapeutic agent in each of the chambers and wherein the first pump draws from each of the chambers to supply a desired amount of each of the therapeutic agents to be supplied to the CSF.

8. The method according to claim 1, further comprising the step of providing plurality of pumps between the first reservoir and the distal end of the first conduit for controlling introduction of material from the first reservoir to the CSF, wherein the first reservoir includes a corresponding plurality of chambers with a respective therapeutic agent in each of the chambers and wherein each of the pumps draws from the corresponding chamber to supply a desired amount of each of the respective therapeutic agent to the CSF.

9. The method according to claim 1, wherein the proximal end of the second conduit opens into a second reservoir into which the CSF is drained.

10. The method according to claim 9, further comprising the step of providing a second pump between the second reservoir and the distal end of the second conduit for controlling withdrawal of CSF from the CNS.

11. The method according to claim 10, wherein the second pump is an osmotic pump.

12. The method according to claim 10, wherein the second pump is a micro-mechanical pump.

13. The method according to claim 2, wherein the step of detecting and analyzing brain activity includes the substep of embedding the one of a quantitative electroencephalography system and a brainstem auditory evoked response system within a body of the patient.

14. The method according to claim 13, wherein the one of a quantitative electroencephalography system and a brainstem auditory evoked response system provides output to treatment personnel who utilize the output to devise strategies for correcting the imbalance.

15. The method according to claim 10, further comprising the steps of:

embedding a one of a quantitative electroencephalography system and a brainstem auditory evoked response system within the patient's body to detect and analyze brain activity to identify brain activity corresponding to a predetermined imbalance within the CSF; and

controlling the first and second pumps automatically based on output from the one of a quantitative electroencephalography system and a brainstem auditory evoked response system to correct the imbalance.

16. The method according to claim 9, further comprising the step of withdrawing a sample of fluid from the second reservoir for microassay by inserting a syringe into the second reservoir.

17. The method according to claim 9, further comprising the step of detecting data corresponding to a microassay of fluid within one of the second conduit and the second

reservior.

18. The method according to claim 1, wherein the imbalance is a chemical imbalance in the CSF.

19. The method according to claim 1, wherein the imbalance is an improper intracranial pressure.

20. A system for treating disorders of the central nervous system (CNS), comprising:

first and second conduits, wherein, when in an operative position, distal ends of the first and second conduits open into a portion of a patient's CNS with direct access to cerebrospinal fluid (CSF) and wherein, when in the operative position, a proximal end of the second conduit opens to drain CSF from the CNS;

a first reservoir implantable within the patient's body and holding a first material to be introduced to the CNS;

a first pump coupled to the first reservoir and the first conduit for introducing the first material to the CNS via the first conduit; and

a brain activity detection unit for detecting and analyzing brain activity of the patient.

21. The system according to claim 20, further comprising a second reservoir coupled to the proximal end of the second conduit for receiving CFS drained from the CNS.

22. The system according to claim 20, wherein the first pump is an osmotic pump.

23. The system according to claim 20, wherein the first pump is a micro-mechanical

pump.

24. The system according to claim 20, wherein the brain activity detection unit of the patient is one of a quantitative electroencephalography system and a brainstem auditory evoked response system analyzing brain activity of the patient, to identify brain activity corresponding to a predetermined imbalance within the CSF.

25. The system according to claim 20, wherein the first reservoir includes a plurality of chambers with a corresponding therapeutic agent in each of the chambers and wherein the first pump draws from each of the chambers to supply a desired amount of each of the therapeutic agents to be supplied to the CSF.

26. The system according to claim 25, wherein the first pump includes a plurality of pump units, each pump unit being coupled to a corresponding one of the chambers.

27. The system according to claim 20, wherein the proximal end of the second conduit opens into a second reservoir into which the CSF is drained.

28. The system according to claim 27, further comprising a second pump between the second reservoir and the distal end of the second conduit for controlling withdrawal of CSF from the CNS.

29. The system according to claim 28, wherein the second pump is an osmotic pump.

30. The system according to claim 28, wherein the second pump is a micromechanical pump.

31. The system according to claim 20, wherein the brain activity detection unit is embedded within a body of the patient.

32. The system according to claim 20, wherein the brain activity detection unit provides output to treatment personnel who utilize the output to devise strategies for correcting the imbalance.

33. The system according to claim 20, wherein an output of the brain activity detection unit is coupled to the first and second pumps to automatically control operation of the first and second pumps based on quantitative electroencephalography system output to correct the imbalance.

34. The system according to claim 33, wherein the imbalance is a chemical imbalance in the CSF.

35. The system according to claim 33, wherein the imbalance is an improper intracranial pressure.

36. An osmotic pump including:

a plurality of agent reservoirs;

first and second solute chambers;

a semi-permeable membrane separating the first and second solute chambers from one another;

a flexible membrane separating a first one of the agent reservoirs from the first solute chamber; and

a plurality of valves, each of the valves moveable between an open position in which a corresponding one of the agent reservoirs is open to an outlet of the pump and a closed position in which the corresponding one of the agent

reservoirs is sealed with respect to the pump outlet.

37. The osmotic pump according to claim 36, wherein the flexible membrane separates each of the agent reservoirs from the first solute chamber.

38. The osmotic pump according to claim 36, wherein the flexible membrane comprises a plurality of independent flexible members, each of the flexible members separating a corresponding one of the agent reservoirs from the first solute chamber.

39. The osmotic pump according to claim 36, further comprising a valve control mechanism for selectively moving each of the valves between its open and closed position.

40. A system for treating disorders of the central nervous system (CNS), comprising:

first and second conduits, wherein, when in an operative position, distal ends of the first and second conduits open into a portion of a patient's CNS with direct access to cerebrospinal fluid (CSF) and wherein, when in the operative position, a proximal end of the second conduit opens to drain CSF from the CNS;

a first reservoir implantable within the patient's body and holding a first material to be introduced to the CNS;

intracranial pressure detecting unit;

a first pump coupled to the first reservoir and the first conduit for introducing the first material to the CNS via the first conduit; and

a brain activity detection unit for detecting and analyzing brain activity of the patient, the brain activity detection unit controlling drainage of CSF based on input from the intracranial pressure detecting unit to maintain intracranial pressure within a

predetermined range.

41. The system according to claim 40, wherein the intracranial pressure detecting unit includes a pressure sensor.

42. The system according to claim 40, wherein the intracranial pressure detecting unit analyzes electrical activity of the brain to determine a current intracranial pressure.

43. The system according to claim 42, wherein the intracranial pressure detecting unit includes a transmitter for providing auditory signals to the patient and a BAER analyzer for analyzing brainstem evoked auditory potentials to determine a current intracranial pressure.

44. The system according to claim 40, wherein, when the intracranial pressure is greater than 7 Torre, the brain activity detection unit drains CSF until the intracranial pressure is no greater than 7 Torre.

45. The system according to claim 43, wherein the BAER analyzer collects BAER data corresponding to auditory signals generated by the transmitter and analyzes a BAER waveshape determined based on the BAER data to detect peaks of the BAER waveshape and determine a time interval between a first peak and a fifth peak of the BAER waveshape to determine the intracranial pressure.

46. The system according to claim 45, wherein, when the time interval between the first and fifth peaks is greater than 4.2 milliseconds, the brain activity detection unit determines that the intracranial pressure is excessive and controls drainage of CSF to reduce the intracranial pressure.